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ChemRisk Repos. No. 2050

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NOTEBOOK NO. A-401 EXCERPTS

Assigned to: H. Blauer

Department: Operation Division

Location: 3037

Date: 12-16-52

RUN 52 5/23/53 [8-4]

5/26 NITE: water → scrubber

ChemRisk Document No. 2050

This document has been approved for release to the public by:

David R Hamrin 9/9/95
Technical Information Officer Date
ORNL Site

(7.) Repaired steam leak to jet dissolver + replaced still trap at I 131

5/22/53 (1) Found water running into hot sink in Rm 16
4-12 Bldg 4505. Turned off.
Schaich (2) Filled acid tanks, made up batch of 4% in M-10, a batch of Na_2CO_3 in M-1, and delivered charging machine and truck to Pile Bldg. Made up 35% NaOH in T-9 for 1st Coating Removal (459#). Weighed out HNO_3 for 1st coating removal.
(3) Continued evaporating. Continued run above 1.30 sp.G. since it is running better than 400 gal/hr.

5-23-53 1- Received a 850# carrier from Phillips
8-4 Petroleum Co. to Bldg. 3038.
2- Made up 1st. part of Coating Removal for Al.
RUN 52
3- First load slugs in front of Bldg. 3026-D.

5/23/53 (1) P.E. Phillips called home. Osborne came in
4-12 his place. Phillips will work 4-12 Sunday.
Schaich (2) Right rear inside tire flat on big truck.
(3) Loaded 71 slugs. One stayed in basket but was finally pulled out at Pile Bldg. Slug basket should be reworked. A-1 contact mike stopped operating on 3rd load. Believe it is in the speaker since recorder was getting signal. Hope the slugs went

RUN 52

into the tank.

(4) Run status: A-1 - 2nd Coating Removal Coating
M-1 - Batch Na_2CO_3
M-10 - " 4% NaOH
T-9 - 6% HNO_3 - Needs H_2O

(5) Continued evaporating. seems to have settled down slightly.

(6) No time cards.

5/24/53 (1) Replaced speaker on Al-Ag audio
12-8 system.
Blaum (2) Replaced charts at evap. + stack.

(3) Evap. running well. Cut back to 200 gallons/hr. maximum when dissolving started.

(4) Run status
A-1 - 1M A dissolving
M1 - Batch Na_2CO_3
T8 - Dilution H_2O for dissolving

(5) Pile bldg regenerating column into CO_2 at shift change

(6) Hot spot on side of slug charger down to 15 mr/hr. still in decontamination room to be gotten down to 7½ mr/hr if possible.

5/24/
8-4
Schaic

5/24/5
4-12
Lampt

5/25/
12-8
Blau

5/24/53 ① D.C. King will work 4-12 in place of P.E. Phillips
8-4 (May not be in tomorrow). Could not contact Blevins
Schaich or Hodges. No phone listed.

② Sp. C.T. at 11 A.M. — 25 cts/min

③ Cleaned and stored charging machine.

④ Continued evaporating — 200 gal/hr.

⑤ Run status: A-1 - Batch A cooling.
M-1 - Batch of NaOH for 4%
A5- " " Na_2CO_3
T-8 - 255# H_2SO_4

5/24/53 ① Continued evaporating at 200 gal/hr.
4-12 ② Run status: A-1 - Batch B dissolving
Lampton A-8 — 8WMA
M-1 - Batch of NaOH
A-5 — " " Na_2CO_3
T-9 — 130# H_2O
T-8 — 255# H_2SO_4
Crud filters - clean
P.F. 2 — product Batch A extract

③ A9 tank oil manometer read 1" when equalized.

④ Washed down cottrell precipitator after batch A dissolving.

5/25/53 ① Evap. operating at 200 gal./hr.
12-8 ② Loaded 1 - 1/8" W slug for I131. Carrier
Blaner read 500 mr/hr at contact. Rinsed out I131
equipment before loading slug. Made up

scrubber solution using 6 lbs NaOH. Coating removal materials weighed up at cell. Used quantities equivalent to 3 x slugs coating removal

(3) Emptied Evap. sump and loaded down floor refilling sump to 12".

(4) Brought down pile units.

(5) 1MA — 9800 S.T. approx
8WMA — 64 S.T. approx.
1MB — 9400 S.T. approx

(6) Run status

A1 — 1MC Dissolving
A2 — Batch B Digesting to 8:45 AM
A5 — Batch Na_2CO_3
A6 — neutralized Batch A
M1 — 900# NaOH
A17 — MT
P.F — MT
C.F — not Backwashed
A11 — MT
A8 — MT.

(7) Washed Cottrell after 1MB dissolving. Reads 180 mr/hr at West side of Cottrell at fence gate.

(8) Drained filter boxes

(9) Decontaminated some acid carboys by washing, removing hot wood etc. More carboys are not following resmear + repeat. These are tagged.

(10) T-5 HNO_3 drains very slowly. Acts like a plugged line. Leave for M.T. after the run

so it can be repaired.

(11.) Lost time on end filtration of Batch B — Couldn't get vacuum on A17. Found jack screw on C.F.-2 loose enough to leak badly. Tightened it up & it is O.K. now.

5/25/53 8-4 Schaich

(1) Cocooned Product carrier and inserted product cone.

(2) Reworked and smeared hot carboys.

(3) Hot truck removed NaOH cans.

(4) Garage repaired 1½ ton truck flat tire.

(5) Instruments repaired A9 L.L. manometer, A5 vacuum, and switched A1 tank thermocouple so that it operates on both micromaxes.

(6) A1 jacket vent line leaking at elbow behind PB-1. Will repair after run.

(7) Started F.I. dissolving.

(8) Decontaminated sample carriers.

(9) Ordered H_2SO_4 for "D" Bldg and decontamination materials for F.I. cell.

(10) Added resin to Column. Ready for titration.

(11) SWMB - 75 c's S.T.

(12) M-10 to M-3 valve is leaking. Will repair after run.

(13) Run Status: A1 - Batch C diluted.
A5, A8, A9, A17, A-11, - MT
PF-2. Product
T-9 - 340# HNO_3 A6 - Neut. Batches A + B
T-8 - H_2SO_4 M-10 - 4% Caustic
M-1 - [redacted] Batch Na_2CO_3

(14) Tuscon Carrier inwards sent to hot shop.
(15) Continued evaporating.
(16) M.H. #14 is out. ~~No flow thru manhole~~
Rectifying unit sitting out on the ground.

5/25/53 (1) Checked FI dissolving.
4-12 (2) Continued evaporating.
Lampton (3) Washed down cottrell precipitator after batch C dissolving.
(4) A9 tank oil L.L. manometer is now reading low.
(5) A8 sampler plugged and had to be steamed to unplug. Sampler OK now.
(6) Run status:

A1 — IMD dissolving A9 — MT
A3 — Batch Na_2CO_3
A6 — M.T.
A8 — 8WMC
C.F — clean
P.F — MT

(7) IMC — 8370 S.T. Approx.
(8) Cleaned hot spots around A8 sampler
(9) Made Test on A1 audio system with small piece of U. Slug shute is clear and audio system worked fine.

5/26/53 1. Brought down Sulfur C2N.
12-8 2. Continued with I^{131} Dissolving Reading on
R.L.N. INST. 2.5 ON the 7 Scale.

3. Finished Batch D. Dissolving S.P.G.R. Continued to slowly rise so used 12 hrs. dissolving time, started using water for the scrubber at 2:15 A.M.

4. Run Status.

A-1 MT

A-5 - Batch Na_2CO_3

A-6 - Neutralized Batch C

A-8 MT

A-9 MT

A-11 Filtering Batch D to A-17

A-17 Batch D.

5. Started the Resin titration the 2.96 M HNO_3 and water wash is in M.W. ready for sampling.

6. Cottrell has not been washed after Batch D dissolving.

5/26/53 ① Ran big steam turbine 4 hours.
8-4 ② Washed Cottrell.
Schaich ③ Finished Resin titration.
④ Finished sparging stills, sampled & dropped scrubber, 4 cuts to go to Rm 10. Heel dissolving going on.
⑤ P^{32} extractions come off at 10:30 PM & 12:30 PM. (Also sulfur can filling)
⑥ Loaded old Pala carrier on truck and had carpenters shore it up.
⑦ Run status: A1 - Heel dissolving
A6 - Neut. Batches C & D

A5, A11, — MT
A9 — 1st Metathesis filtering to A-17.

(8) Repaired HNO_3 line from T-5.
(9) continued evaporating.

5/26/53 (1) Finished 1st FI scrubber still. The
9-12 2nd and last still is going at shift
Lampton change.
(2) Took up P^{32} extraction in E-1 at 10:30PM and sampled. Boiling down at shift change.
(3) Filled three sulfur cans. There is a can in melter. melting. One can left to go.
(5) Rala status:
A1 — Heel dissolving
A5 — A17, A8 H_2O wash.
A8 — 8WCW
A9 — 3rd Metathesis.
A17, A6 — MT.
~~A4~~ - A11 — 8WC
(6) 8WC — 3570 S.T. Approx.
(7) Continued evaporating.

1-Took off Extract from E-2 at 12:30 pm boiled
5/27/53 down in EV # 1.
2.8 2. Continued F.I. heel dissolving.
R.Lin. 3. Finished filling Sulfur Cans.
Continued in New Log book